C L A I M S

1.   Method for the preparation of a mixture of peptides, having an
arginine and lysine content of at least 20 w/w%, based on the
5 protein content, from at least one protein source, comprising the
steps of:
a)   cleaving the proteins of at least one protein source into
peptides;
b)   allowing the peptides to bind to cation exchange resin;
10 c)   washing the cation exchange resin with an alkaline wash
solution having a normality of 0.05-2.0;
d)   eluting bound peptides from the resin with an aqueous elution
solution having an ionic strength of at most 200 mM and a pH between
5.0-9.0.
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2.   Method according to claim 1, comprising between steps b) and c)
a prewash step, wherein said cation exchange resin is washed with a
prewash solution having an ionic strength of at most 200 mM and a pH
between 5.0-9.0.
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3.   Method according to claims 1 or 2, wherein the mixture of
peptides has an arginine and lysine content of at least 30 w/w%,
based on protein content.

25 4.   Method according to any of the preceding claims, wherein step
a) comprises enzymatic hydrolysis.

5.   Method according to any of the preceding claims, wherein step
b) is preceded by a filtration step.
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6.   Method according to claim 5, wherein the filtration step is
carried out with a membrane having a cut-off of 10 kDa.

7.   Method according to any of the preceding claims, wherein the at
35 least one protein source comprises at least two different proteins.

8.   Method according to any of the preceding claims, wherein the at least one protein source is of vegetable origin.

9.   Method according to any of the preceding claims, wherein the at least one protein source is chosen from the group, consisting of soy, pea and cotton seed.

10.   Method according to any of the preceding claims, wherein the at least one protein source comprises at least 10 w/w% arginine and lysine.

11.   Preparation comprising a mixture of arginine- and lysine-rich peptides, comprising at least 20 w/w% arginine and lysine.

12.   Preparation comprising a mixture of arginine- and lysine-rich peptides, comprising at least 10 w/w% arginine and at least 10 w/w% lysine.

13.   Preparation comprising a mixture of arginine- and lysine-rich peptides, comprising at least 30 w/w% arginine and lysine.

14.   Preparation comprising a mixture of arginine- and lysine-rich peptides, comprising at least 15 w/w% arginine and at least 15 w/w% lysine.

15.   Use of a preparation according to any of claims 11-14 as active compound in a medicament, supplement, beverage or food product.

16.   Use according to claim 15 for elevation of nitric oxide blood levels.

17.   Use according to claim 16 for increasing aerobic capacity and/or decreasing acidification in muscle tissue.

18.   Use according to claims 15 or 16 for prophylaxis and/or treatment of disorders associated with reduced and/or inadequate vasodilation or increased blood platelet aggregation.

19.   Use according to claim 18, wherein the disorder is chosen from the group, consisting of arteriosclerosis, restenosis, thrombosis, hypertension, impotence and diabetes.

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20.   Use according to claim 15 for stimulating growth hormone levels, stimulating immune response or for improving regulation of blood glucose levels.